

Amendments to the Claims

Claim 1 (Withdrawn): An isolated nucleic acid molecule comprising a polynucleotide selected from the group consisting of:

- (a) a polynucleotide or a conservatively modified variant thereof having 95% sequence identity to SEQ ID NO:1;
- (b) a polynucleotide or a conservatively modified variant thereof having the sequence of SEQ ID NO:1;
- (c) a polynucleotide or a conservatively modified variant thereof that encodes a polypeptide having 95% sequence identity to SEQ ID No:2;
- (d) a polynucleotide or a conservatively modified variant thereof that encodes a polypeptide that retains similar biological activity as the unmodified sequence of SEQ ID NO:2;
- (e) a polynucleotide encoding a polypeptide of SEQ ID NO:2;
- (f) a polynucleotide that hybridizes under high stringency conditions to the polynucleotide of SEQ ID NO:1; and
- (g) a polynucleotide complementary to a polynucleotide of (a) through (f).

Claim 2 (Withdrawn): A recombinant expression cassette comprising the isolated nucleic acid molecule of claim 1.

Claim 3 (Withdrawn): A vector comprising the recombinant expression cassette of claim 2.

Claim 4 (Withdrawn): A host cell comprising the vector of claim 3.

Claim 5 (Withdrawn): The isolated polynucleotide of claim 1 wherein the polypeptide has expansin activity.

Claims 6-7 (Canceled).

Claim 8 (Withdrawn): An isolated polypeptide comprising a polypeptide selected from the group consisting of:

- (a) a polypeptide or a conservatively modified variant thereof having 95% sequence identity SEQ ID NO:2;
- (b) a polypeptide or a conservatively modified variant thereof having the amino acid sequence of SEQ ID NO:2;
- (c) a polypeptide or a conservatively modified variant that that retains similar biological activity as the unmodified sequence of SEQ ID NO:2; and
- (d) a polypeptide which is encoded by the polynucleotide of SEQ ID NO: 1.

Claim 9 (Withdrawn): An antibody which selectively binds to the polypeptide of claim 8.

Claim 10 (Withdrawn): An isolated polynucleotide comprising a nucleotide sequence of SEQ ID NO: 1, and which encodes a protein having expansin activity.

Claim 11 (Withdrawn): An isolated polynucleotide having at least 95% sequence similarity to SEQ ID NO: 1 and which encodes a protein having expansin activity.

Claim 12 (Withdrawn): An isolated polynucleotide that encodes a polypeptide of SEQ ID NO:2 wherein the polypeptide has expansin activity.

Claims 13-21 (Canceled).

Claim 22 (Withdrawn): A method of modifying cells walls in the tissues of a transgenic plant, the method comprising:
introducing into a plant an expression cassette comprising a promoter active in cells of plants operably linked to a group 2/3 allergen polynucleotide which specifically hybridizes to SEQ ID NO:1 under stringent conditions.

Claim 23 (Withdrawn): A method of weakening the mechanical strength of cellulose fibers, the method comprising:
contacting a quantity of cellulose with a composition having a polypeptide comprising an amino acid sequence of SEQ. ID. NO:2.

Claim 24 (Withdrawn): A method of modifying plant cell walls, the method comprising:
introducing into a plant a polynucleotide sequence that encodes a polypeptide sequence comprising SEQ ID NO:2, the method comprising:
cultivating the plant under conditions suitable for plant growth and production of the

polypeptide;
harvesting the plant; and
recovering the polypeptide.

Claim 25 (Withdrawn): A method for producing a polypeptide having expansin activity comprising:

- (a) cultivating the host cell of claim 4, under conditions suitable for production of the polypeptide; and
- (b) recovering the polypeptide.

Claim 26 (Withdrawn): A transgenic plant cell comprising a nucleic acid comprising the sequence of SEQ ID NO:1.

Claim 27 (Withdrawn): A transgenic plant with a genome comprising a nucleic acid comprising the sequence of SEQ ID NO:1 that possess expansin activity.

Claim 28 (Withdrawn): Seeds of the plant of claim 27 which carry the DNA construction in their genome.

Claim 29 (Withdrawn): A transgenic plant comprising an expression cassette operably linked to a group 2/3 allergen polynucleotide which specifically hybridizes to SEQ ID NO:1 under stringent conditions.

Claim 30 (New): A protein preparation useful for the expansion of a plant cell wall comprising:

a group 2/3 pollen allergen and a carrier.

Claim 31 (New): The protein preparation of claim 30 wherein said group 2/3 pollen allergen having β -expansin activity comprises the group 2/3 pollen allergen as shown in SEQ ID NO:2.

Claim 32 (New): The protein preparation of claim 30 wherein said group 2/3 pollen allergen having β -expansin activity has an amino acid sequence of TKVDLTVEKGSDAKTLVLNI (SEQ ID NO:5) in the N-terminal twenty amino acids of said allergen.

Claim 33 (New): The protein preparation of claim 30 wherein said group 2/3 pollen allergen having β -expansin activity has more than one aromatic residue on its protein surface.

Claim 34 (New): The protein preparation of claim 31 wherein said group 2/3 pollen allergen having β -expansin activity is Lol p 3.

Claim 35 (New): The protein preparation of claim 30 wherein said group 2/3 allergen having β -expansin activity is not affected by dithiothreitol (DDT).

Claim 36 (New): The protein preparation of claim 31 wherein said preparation further includes a β -expansin.

Claim 37 (New): The protein preparation of claim 30 wherein said carrier is a buffer.